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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,681	10/17/2003	Riku Pulli	014975-086	8300

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DRINKER BIDDLE & REATH (DC)
1500 K STREET, N.W.
SUITE 1100
WASHINGTON, DC 20005-1209

EXAMINER

TRAN, KHOI H

ART UNIT	PAPER NUMBER
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3651

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/686,681

Applicant(s)

PULLI ET AL.

Examiner

Khoi H. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

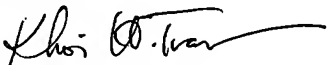
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


KHOI H. TRAN
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "loading table" must be shown or the feature canceled from the claim 19. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 19 and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In regards to claim 19, the original specification does not provide support for "automatically guide a loading table to the emptying area".

In regards to claim 20, the original specification is silent as to how the controller actually controls the loader to fetch material from a predefined loading area, and automatically guide the loader to move between the loading area and the emptying area. The mere citation that the loader is autonomously operated does not provide enough information to enable one of ordinary skill in the art to make and/or use the instant invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 12-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regards to claim 12, it is not distinct that the dumper is actually part of the claimed invention. Applicant is required to positively identify the dumper as part of the

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claimed invention. Line 6, "the loading area" lacks antecedent basis. Line 7, "the dump box" lacks antecedent basis. It is not distinct which dump box Applicant is referring. Line 11, "the emptying area" and "empty point" lack antecedent basis. It is not distinct which "empty area" and "empty point" Applicant is referring. Line 12, it is not distinct which element "its" is referring.

In regards to claim 15, "bucket" lacks antecedent basis.

In regards to claim 17, it is not distinct which "load parameter" Applicant is referring.

In regards to claim 18, it is not distinct which spatial direction is actually "the longitudinal direction". It is not known which "load parameter" Applicant is referring.

In regards to claim 19, line 2, "the emptying area of the loader" is not distinct. It is not known which emptying area Applicant is referring. It is not certain if this area is actually the same as "the emptying area" in claim 12. Line 3, "a loading table" lacks positive identification. It is not distinct whether this element is actually part of the claimed invention. In addition, it is not known which loading table Applicant is referring.

In regards to claim 20, line 4, "the loader bucket" lacks antecedent basis.

In regards to claim 21, "its loading area" is not distinct. It is not known which area Applicant is referring. Line 3, it is not known which "unloading area" Applicant is referring.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 12-15 and 17-21, as best understood, are rejected under 35 U.S.C.

103(a) as being unpatentable over Burns et al. (U.S. Patent No. 6,442,456) in view of Stentz et al. (U.S. Patent No. 6,363,632).

Burns et al. '456 disclose a control system for automatically guide autonomous movements of a dumper truck 32 and a loading vehicle 10 (Figure 6). The controller maneuvers the dumper truck and the loading vehicle to a position that enables the loading of the dumper truck 32 by the loading vehicle 10. However, Burns et al. is silent as to the specifics of the actual loading of material into the dumper truck.

Stentz et al. '632 disclose an automated system for loading material autonomously from a loading vehicle to a dump truck (Figures 3 and 4). The system comprises means for locating the location of dump truck prior to the actual loading of said truck. The system comprises means for measuring the shape and height of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load (Figures 2 and 8-10).

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Burns et al. '456 with the material loading system per Stentz et al. '632 because it facilitates autonomous means for loading material into a dump truck.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck, as shown by Stentz et al. '632.

In regards to claim 21, it is obvious that the load within the autonomously driven dumper truck would have to be emptied at a predetermined area.

8. Claims 12, and 15-21, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (U.S. Patent No. 6,442,456) in view of Baker (U.S. Patent No. 6,157,889).

Burns et al. '456 disclose a control system for automatically guide autonomous movements of a dumper truck 32 and a loading vehicle 10 (Figure 6). The controller maneuvers the dumper truck and the loading vehicle to a position that enables the loading of the dumper truck 32 by the loading vehicle 10. However, Burns et al. is silent as to the specifics of the actual loading of material into the dumper truck.

Baker '889 discloses an automated system for loading material autonomously from a loading vehicle to a dump truck. The system comprises means for locating the location of dump truck prior to the actual loading of said truck. The system comprises means for measuring the weight of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load.

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Burns et al. '456 with the material loading system per Baker '889 because it facilitates autonomous means for loading material into a dump truck.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck.

9. Claims 12, 15-21, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (U.S. Patent No. 6,157,889). In view of Burns et al. (U.S. Patent No. 6,442,456).

Baker '889 discloses an automated system for loading material autonomously from a loading vehicle to a dump truck. The system comprises means for locating the location of dump truck prior to the actual loading of said truck. The system comprises means for measuring the weight of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load. However, it is silent as to the specifics of the dumper truck being autonomously controlled and driven.

Burns et al. '456 disclose a control system for guiding autonomous movements of dumper truck 32 and loading vehicle 10 (Figure 6) within the mining environment. Burns et al. '456 teach that the automatic operation of earthmoving equipments, i.e. dumps trucks and excavators, facilitates high productivity and safety.

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Baker '889 with the autonomously driven dump truck because it facilitates higher productivity and safety, as taught by Burns et al. '456.

It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck.

10. Claims 12-15 and 17-21, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Stentz et al. (U.S. Patent No. 6,363,632) in view of Burns et al. (U.S. Patent No. 6,442,456).

Stentz et al. '632 disclose an automated system for loading material autonomously from a loading vehicle to a dump truck (Figures 3 and 4). The system comprises means for locating the location of dump truck prior to the actual loading of said truck. The system comprises means for measuring the shape and height of the deposited load on the dump truck to facilitate subsequent material loading, and to enable an evenly distributed load (Figures 2 and 8-10).

Burns et al. '456 disclose a control system for guiding autonomous movements of dumper truck 32 and loading vehicle 10 (Figure 6) within the mining environment.

Burns et al. '456 teach that the automatic operation of earthmoving equipments, i.e. dumps trucks and excavators, facilitates high productivity and safety.

It would have been obvious for a person with ordinary skill in the art, at the time the invention was made, to have provided to Stentz et al. '632 with the autonomously driven dump truck because it facilitates higher productivity and safety, as taught by Burns et al. '456.

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It is obvious that the autonomously operated dumper truck would have to be stopped at a predetermined loading area to facilitate the loading of the truck.

In regards to claim 17, it is obvious that the loading vehicle could be guided to approach the dumper truck from any directions, including a transverse direction from the truck.

Response to Arguments

11. Applicant's arguments with respect to claims 12-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Additional references made of record and not relied upon are considered to be of interest to applicant's disclosure: see attached USPTO Form 892.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

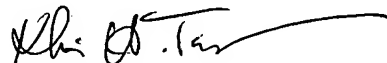
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khoi H. Tran whose telephone number is (571) 272-6919. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Khoi H Tran
Primary Examiner
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